

Introduction

The Conference Report to H.R. 2862, Science, State, Justice, Commerce, and Related Agencies Appropriations Act, 2006 (P.L. 109-108, H. Rpt. 109-272), enacted on November 22, 2005, contains language requiring the Department of Justice ("the Department") to submit a report discussing the recommendations contained in a recent National Academy of Sciences report and how they relate to the Department's administration of the Radiation Exposure Compensation Act. The relevant language is as follows:

"Radiation Exposure Compensation – The conferees direct the Department to submit a report, within 90 days of enactment, to the Committees on Appropriations detailing those actions that the Department and the Congress can take to implement the recommendations of the National Academy of Sciences' report on the coverage of affected populations by the Radiation Exposure Compensation Act."

Background

The Radiation Exposure Compensation Act (RECA), 42 U.S.C. §2210 (note), was enacted on October 15, 1990, to provide for compassionate payments to individuals (or their surviving beneficiaries) who contracted certain cancers and other serious diseases as a result of their exposure to radiation released during above-ground nuclear weapons tests or as a result of occupational exposure to radiation while employed in uranium mines. Congress created a unique compensation scheme under which individuals satisfying certain criteria (exposure to radiation and existence of a compensable disease) receive a monetary payment. There is no requirement that a claimant establish that his or her disease was caused by exposure to radiation. Rather than require claimants to establish actual causation in accordance with scientific principles on a claim-by-claim basis, Congress opted for a system in which it considered the available scientific information in order to specify in the statute itself the exposure criteria and compensable diseases that it believed to be scientifically supported. A claimant who satisfies the statutory exposure criteria and has a specified compensable disease thus can be said to have been found by Congress to have contracted that disease as a result of an exposure to radiation covered by RECA.

On July 10, 2000, Congress amended RECA in several significant respects. Two new claimant categories were added (uranium millers and ore transporters), the definition of uranium miner was expanded, and additional compensable diseases were designated for all of the claimant categories. In addition, Congress included new affected geographic areas within the "downwinder" claimant category. Those areas include significant portions of Arizona and Utah. Currently, the covered areas are: in the State of Utah, the counties of Washington, Iron, Kane, Garfield, Sevier, Beaver, Millard, Wayne, San Juan, and Piute; in the State of Nevada, the counties of White Pine, Nye, Lander, Lincoln, Eureka, and that portion of Clark County that consists of townships 13 through 16 at ranges 63 to 71; and in the State of Arizona, the counties of Coconino, Yavapai, Navajo, Apache, Gila, and that part of Arizona that is North of the Grand Canyon.

In August 2002, Congress directed the Health Resources and Services Administration

(HRSA) to contract with the National Academy of Sciences (NAS). The NAS was requested to convene a committee and, based on scientific knowledge and principles, assess recent biologic, epidemiologic, and related scientific evidence, and provide recommendations to HRSA and Congress regarding three specific areas. First, the NAS was asked to provide technical assistance to HRSA and its grantees on improving accessibility and quality of medical screening, education, and referral services.¹ Second, the NAS was requested to report to HRSA regarding the most recent scientific information related to radiation exposure and associated cancers or other diseases, with recommendations for improving services for exposed persons. Lastly, the NAS was tasked with considering whether other groups of individuals or additional geographic areas should be covered under the Radiation Exposure Compensation Act. See P.L. 107-206. In September 2002, the NAS's Board on Radiation Effects Research was tasked with this mission.

Discussion

In April 2005, the NAS published its report, Assessment of the Scientific Information for the Radiation Exposure Screening and Education Program. The NAS report concludes that in order to ensure fairness, any compensation program should be premised on scientific criteria. Specifically, it states that eligibility under RECA should be scientifically assessed, noting that “[t]he use of scientific criteria is of particular importance because ionizing radiation is not a potent cancer-causing agent, and the risks for radiation-induced disease are generally low at the exposure levels of concern in RECA populations.” Id. at 3. According to the report, the scientific evidence regarding radiogenic illness indicates that in most cases it is unlikely that exposure to radiation from fallout was a substantial contributing cause to developing cancer. Id. at 4.

The NAS report recognizes that, should Congress decide to follow its recommendation that eligibility criteria should be based on a scientific assessment, Congress would have to rewrite the statute in its entirety. Instead of the current statutory approach of specified geographic exposure areas and temporal criteria, under the NAS recommended approach every claimant would have to establish that his or her illness was caused by radiation exposure. Under this claim-by-claim scientific causation approach, every claim, regardless of the geographic location of the exposure, would be evaluated according to a dose reconstruction assessment. While the Act, on NAS's recommended approach, thus would apply throughout the Nation, the NAS report suggests that because of the scientific uncertainty of the causal relationship between radiation exposure and the specified diseases, this approach would result in fewer successful claims than the current statutory approach. The NAS report acknowledges that these “conclusions will be disappointing,” but states that “they have been reached in accordance with the committee’s charge to base its conclusions on the results of best available scientific

¹ HRSA oversees the Radiation Exposure Screening and Education Program, a competitive grant program for health-care organizers created by the amendments of 2000 to initiate and support programs for health screening, education, medical referral, and appropriate follow-up services for individuals eligible under RECA.

information.” Id. at 4.²

If Congress were to choose to revise the Act to implement the NAS report, additional study would be required to formulate the recommended scientific framework. The specific recommendations set out in the NAS report are discussed below.

NAS Recommendations

The NAS report includes 22 recommendations, four of which are directed specifically to Congress and relate to the current RECA framework. Because implementing the report’s recommendations would require a wholesale revision of the Act, only Congress, and not the Department, would have the authority to take action to implement the NAS’s recommendations. As a result, none of the NAS’s recommendations is directed to the Department.

1. The NAS recommends that eligibility criteria be based on an individualized scientific assessment rather than solely on residence in a specific geographic area. The NAS recommends that Congress establish a process using probability of causation/assigned share (PC/AS) to determine eligibility for compensation for a specified RECA illness for those individuals exposed to radiation from fallout as a result of nuclear weapons testing. This PC/AS approach would apply to both “downwinders” and “onsite participants.” The PC/AS is a mathematical formula representing the fraction of a group of identical persons in whom a radiation-induced cancer would be expected to occur at some specified time after a dose of radiation was received. Id. at 126. It is the individual’s “share” of the total cancer risk due to radiation. The PC/AS is used in the adjudication of claims by other federal programs that compensate for illnesses caused by radiation exposure, including the Radiation-Exposed Veterans Compensation Act and the Energy Employees Occupational Illness Compensation Program Act. The NAS report states that this model provides a more scientific basis for awarding compensation to persons who have been exposed to radiation and later have a diagnosed radiogenic disease. Id. at 141. The report does not make specific recommendations for the value of PC/AS that Congress should set as the threshold required for compensation. On this approach, the PC/AS for any individual claimant would be obtained from an estimate of the radiation dose that individual received from the nuclear weapons testing and the risk associated with that dose.

The NAS recommends that before implementing such a revised compensation program, Congress should establish criteria for basing eligibility determinations on computed distributions of PC/AS for individual claimants. Therefore, to support the PC/AS process, the report recommends that additional studies and research be performed by the National Cancer Institute (NCI) and other agencies. It recommends that the NCI conduct additional study to perform a population-based pre-assessment of all radiogenic diseases using PC/AS to provide guidance to

² Although NAS expects that implementation of its proposal would significantly reduce eligibility for compensation, it recognizes that the ultimate impact would depend on the threshold for compensation as established by Congress. Id. at 141.

individuals who might apply for compensation. This analysis would be determined by particular disease, place of residence at the time of the exposure, age at exposure and diagnosis, and other demographic factors using the PC/AS criteria. It would apply to residents of the continental United States, Alaska, Hawaii, and overseas U.S. territories who have been diagnosed with one of the diseases specified in the Act and who may have been exposed, including exposure in utero, to radiation from nuclear weapons testing fallout. Both Nevada Test Site fallout and the United States fraction of global fallout should be considered, according to the NAS report.

Furthermore, the NAS report recommends that the Centers for Disease Control (CDC) and the NCI or other appropriate agencies complete dose estimates for all significant radionuclides in fallout from the government's nuclear weapons testing to the population groups identified above. This should include all the major sources of dose related to nuclear weapons tests considered to have potential health consequences. The report also recommends developing an updated dose calculator for determining dose to the thyroid and other important organs from fallout. Finally, the NCI should maintain and revise the parameters in the models or calculators for estimating PC/AS based on risk estimates recommended by the NAS's BEIR VII report. Periodic updates with the latest risk parameters should also be considered. Once these studies are completed, the NAS report recommends that Congress establish criteria for awarding compensation on the basis of computed distributions of PC/AS for any individual making such a claim.

2. In regard to RECA coverage related to uranium mining, milling and ore transportation in specified states, the Act currently authorizes additional states to apply for inclusion only if uranium mining was conducted in that state. The NAS report recommends that Congress expand the statutory provision to allow additional states to apply for inclusion if uranium milling or ore transportation occurred in that state during the specified time period of January 1, 1942 to December 31, 1971.

3. The NAS report recommends that Congress not include additional diseases on the Act's list of compensable illnesses. The report concludes that no new diseases should be specified as compensable principally because of the absence of epidemiologic and scientific data that such conditions are induced by ionizing radiation; the lack of significant association between diseases and exposure to ionizing radiation; and the absence of evidence that individuals exposed to the radiation doses received are at an increased risk of getting these conditions relative to that of the general population in the United States.

4. The NAS report recommends that radiation doses and estimates of risks from the radioactive releases from all Nevada Test Site nuclear weapons tests, including underground tests that resulted in atmospheric releases, should be included in determining the PC/AS. The committee notes that radioactive material was released from tests other than atmospheric tests at the Nevada Test Site, and suggests that this release should be included in the PC/AS determination.

Conclusion

The NAS report recommends fundamentally restructuring RECA so that eligibility for compensation would be based on a scientific determination for each claimant of whether his or her illness was caused by exposure to radiation. As the NAS recognizes, its recommendation that eligibility for compensation be based on an individualized dose reconstruction assessment using the PC/AS model could not be implemented within the current statutory framework. The report recommends that additional studies be conducted in order to assist Congress in implementing this PC/AS model.

Were Congress to revise the Act consistent with the NAS's recommendations, that would expand the Act's coverage so that it applied to radiation exposure occurring throughout the continental United States, Alaska, Hawaii, and overseas U.S. territories. While claimants thus would not be per se ineligible if their exposure occurred outside of the current Act's specified exposure areas, every claimant would be required to establish under scientific standards that his or her illness was actually caused by radiation exposure. It is anticipated that implementation of the NAS's recommendations would result in fewer successful claims than under the existing statutory approach.

Because the NAS's recommendations call for a fundamental overhaul of the Act, there is no action that the Department of Justice could take to implement the NAS's recommendations within the existing statutory framework. The Department takes no position on the NAS's recommendations or on whether Congress should act to implement the NAS's recommendations through legislation.